Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	DOCKET FILE COPY ORIGINAL
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Amendment to the Commission's Rules to Establish Part 27, the Wireless Communications Services ("WCS")	)	GN Docket No. 96-228

COMMENTS OF VANDERBILT UNIVERSITY

VANDERBILT UNIVERSITY (Vanderbilt) submits the following Comments in the above referenced proceeding.

I. Introduction

On behalf of Vanderbilt University, I appreciate the opportunity to comment on the Notice of Proposed Rule Making on Wireless Communications Services ("WCS") in response to the Commission's Notice issued November 12, 1996.

In considering the recently issued Federal Communications Commission (FCC) Notice of Proposed Rule Making setting out the rules governing broadband spectrum for Wireless Communications Service ("WCS") and the Commission's plan to auction spectrum to providers of wireless communication services, it appears that there were no participants in the regulatory proceeding representing the interests of kindergarten through twelfth grade (K-12) education. I applaud Congressional recognition of the importance of advanced technologies to educational institutions in the Telecommunications Act of 1996.[1] However, the Commission in this proceeding

[1] Section 254 (h)(2)(A) of the Telecommunications Act of 1996 directs the Commission to establish rules "...to enhance, to the extent technically and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms..."

has an opportunity to advance Congressional achievement by requiring K-12 education access to wireless communication services. By permitting access to wireless technologies, classrooms can be networked locally and across the country, promoting efficient use of WCS spectrum for the public interest while fulfilling the Congressional mandate.

The Commission's approach of promoting competition in the WCS industry through the auction of broadband spectrum to various commercial enterprises may not result in reasonably priced access for K-12 users. I believe that the Commission's WCS proposal can, if properly structured, not only promote the most efficient use of the WCS spectrum, but also (I) assure sensitivity by the licensed providers to the special needs and cost limitations of K-12 schools and (ii) provide careful monitoring of wireless service providers to guarantee that K-12 users are not priced out of participation.

II. Discussion

A. Promote Efficient Spectrum Use

Presently most public school classrooms have limited telephone, if any, access and schools for the K-12 population are greatly restricted in their ability to participate in the information services available through traditional telephone communication. Although the Commission has been supportive of using the National Information Infrastructure (NII)[2] for education, in many local areas access to telephone links makes that difficult. Wireless Communication Services would provide for greater educational access to NII and therefore promote efficient use of the proposed spectrum band.

[2] I recognize that other technological developments would serve to complement access to wireless communication services in K-12 classrooms. For example the pending use of the unlicensed NII/SUPERNet, ET Docket No. 96-102.

Vanderbilt has experienced firsthand the significant contributions to be made in an electronic learning community through Vanderbilt's Virtual School. The Virtual School has given teachers hands-on training in computer technology and helped teachers connect with one another and with experts at Vanderbilt and around the world. To date, over 20,000 Tennessee teachers have network access and have received Virtual School training, now offered at over 142 sites around the state.

The success of the Virtual School demonstrates that teachers are ready, willing and able to use the network with great effectiveness in their classrooms. However, to be effective, access must be provided at many points within every classroom in every school. The necessity of readily available access means that a wireless infrastructure within schools could be a breakthrough in providing K-12 classrooms the opportunity to participate in the NII.

Higher education will also be able to make significant use of wireless communications as part of a greater nationwide network. Many institutions, including Vanderbilt, have an infrastructure of telecommunications that supports expanding and adopting new technologies. In fact, our research and development effort often aids in extending these new technologies. This is especially true in the area of applications such as those created by our school teacher education, Peabody College. One illustration would be, "The Adventures of Jasper Woodbury" problem-solving series that combines the story-telling appeal of multimedia with computer and interactive videodisc technology, creating an inviting environment for students to learn complex math skills. The program is currently being used in classrooms across the country at a variety of grade levels to help students develop the necessary reasoning skills to solve real-life math problems. I believe that access to wireless communication could assure that exceptional learning tools such as Jasper Woodbury could be made available to an even greater number of K-12 classrooms, assist in the development of teacher

training at colleges and universities across the country, and connect students, teachers and educational institutions more effectively and affordably than telephone based communication.

I understand The Markle Foundation is submitting a comment that I believe is consistent with our position that a wireless network would promote public interest, particularly in the educational setting. The Comment expresses our common concern that "inside wiring" problems greatly restrict access to learning and education. The Markle Foundation Comment suggests and I support that a nationwide wireless network, connecting schools locally and nationally, would help to efficiently manage the high mobility of the present and future electronic learning community and promote the Congressional goal of helping to "...open new worlds of knowledge, learning, and education to all Americans, rich and poor, rural and urban...via schools and libraries."[3]

B. Affordable Access

It is clear that wireless technologies are rapidly emerging as viable options and supplements to traditional ground-based telecommunications capacities. Point-to-point links, available through licensed WCS providers, could be used to connect schools and libraries to each other and the nationwide learning community; however, such access must be available and affordable to K-12 and higher education. As competition and the maturation of technologies in local exchange, long distance and cellular markets continue to grow, many local carriers are seeking the application of access charges to such use. Such access charges could be prohibitive, precluding participation in wireless networks for K-12 and higher education.

I strongly urge the Commission to consider K-12 and higher education when structuring its

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[3] CC Docket No. 96-45, released November 8, 1996.

proposed order on Wireless Communication Services. Licensed providers of WCS should be sensitive to the special needs of education and cost limitations of K-12 schools. In addition, the Commission should provide guidelines for monitoring wireless service providers to ensure that K-12 users are not priced out of participation.

III. Conclusion

I would welcome the opportunity to engage in discussion with the Commission and others submitting comments on this topic about specific opportunities for the auction to uphold the statutory mandate of the Telecommunications Act and promote public interest through wireless communications services in classrooms nationwide.

Respectfully submitted,

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